PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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EX PARTE Michael Culbert

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Application for Patent

Application No. 09/816,290

Filed: March 21, 2001

FOR:
TRACK FOR IMPROVED VIDEO COMPRESSION

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Examiner: CZEKAJ, David J

Art Unit: 2621

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# REPLY BRIEF IN RESPONSE TO EXAMINER'S ANSWER

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on April 19, 2007.

Signed: Lara M. Nelson
Lara M. Nelson

In Section (10)-v of the Examiner's Answer, the Examiner argues that Wang, at col. 16, lines 52-65, discloses creating a rectangular area via the shape of a rectangle or edit object. However, Wang, at col. 16, lines 52-65, does not disclose a video editing tool or an edit track, but a tool for generating a search request. In addition, col. 16, lines 32-46, of Wang describes FIG. 5h as a way of adding or modifying a bookmark to indicate locations in a "video sequence to be edited." The bookmark does not edit the video sequence but merely marks locations "to be edited."

**Conclusion**

Appellants have pointed out that the cited references contain insufficient teachings to disclose or to render the claims *prima facie* obvious.

In view of the foregoing, it is respectfully submitted that none of the pending claims are rendered unpatentable by the Tahara and Wang references. Accordingly, the pending rejections of all of the claims under 35 U.S.C. § 102 and § 103 should be reversed.

Respectfully submitted,
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## REAL PARTY IN INTEREST

It appears we erroneously stated that Lam Research Corporation was the Real Party in Interest. The Real Party in Interest should be:

Apple Inc.
1 Infinite Loop, M/S 3-PAT
Cupertino, CA 95014

*IN THE UNITED STATES PATENT AND TRADEMARK OFFICE*

In re application of: Michael Culbert

Attorney Docket No.: APL1P211/P2656

Application No.: 09/816,290

Examiner: Czekaj, David J.

Filed: March 21, 2001

Group: 2621

Title: TRACK FOR IMPROVED VIDEO COMPRESSION

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Signed: Lara M. Nelson
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**TRANSMITTAL OF REPLY BRIEF**
**IN RESPONSE TO EXAMINER'S ANSWER**

Mail Stop Appeal Brief-Patents
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is the Reply Brief In Response To Examiner's Answer mailed February 23, 2007.

This reply brief is being filed within two (2) months of the mailing date of the Examiner's Answer.

Applicant believes that no extension of term is required. If an additional extension of time is required, however, please consider this a petition therefor.

☒ Charge any additional fees or credit any overpayment to Deposit Account No. 500388, (Order No. APL1P211).

Respectfully submitted,
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## STATUS OF CLAIMS

Claims 1-20 are pending. Claims 1-20 are rejected. Claims 21-23 have been canceled. The rejection of each of claims 1-20 is appealed.

## GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-4, 11-14, and 17-20 were rejected under 35 U.S.C. 102(e) as being anticipated by Tahara et al. (US 6,671,323, hereinafter "Tahara"). Claims 5-10 and 15-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tahara in view of Wang et al. (US 5,802,361, hereinafter "Wang"). These two grounds of rejection are for review in this appeal. The rejected claims do not stand or fall together and will be argued separately.

## ARGUMENT

The following argument is in response to the Examiner's Answer dated February 23, 2007.

In section (10)-i of the Examiner's Answer, the Examiner argues that because Tahara (US Patent No. 6,671,323 B1), at col. 14 lines 57-64, col. 22 lines 19-34, and Fig. 4, discloses the use of the MPEG_ES_Editing_information for compressing the video data, Tahara discloses using the user recorded editing steps for compressing the video. This indicates that the Examiner equates Tahara's MPEG_ES_Editing_information with the "edit track" of the instant application.

However, not all information contained in Tahara's MPEG_ES_Editing_information relates to user editing information. Tahara's MPEG_ES_Editing_information contains information such as V-phase, H-phase, Time_code1, Time_code2, Ancillary_data, Line-number, DTS_counter, PTS_counter, and Field_ID information (see Tahara, col. 11 lines 28-37). Among these, only the Ancillary_data relates to user editing information (see Tahara, col. 7 lines 35-50). Only Tahara's Ancillary_data is equivalent to the edit track of the instant application, because the edit track of the instant application contains user editing information.

Therefore, in order for Tahara to anticipate the instant application, Tahara must specifically disclose using its Ancillary_data, and not just some portion of MPEG_ES_Editing_information, for compressing the video data, because independent claim 1 of the instant application specifically provides that "the editing track records the editing steps made by a user video editing software" and "the recorded editing steps made by a user using video editing software in the edit track are used for compressing the video data." Similar language may be found in independent claims 11 and 17 of the instant application.

Although Ancillary_data (i.e., user editing information) is contained in MPEG_ES_Editing_information, nowhere in Tahara discloses actually using Ancillary_data during the compressing of the video data. Instead, the ancillary data is extracted from the video data during the compression process, inserted into the encoded streams as Ancillary_data, and sent to the destination along with the rest of the encoded

video data. During the decompression process, the ancillary data is again extracted from the encoded streams and added back to the decoded video data, as discussed in Tahara, column 3, lines 51-65. Thus, ancillary data merely are sent along with the rest of the video data, but are not used during the compression and decompression process of the video data. Therefore, in Tahara, the editing information (edit track) – ancillary data – are not used during the compressing of the video data.

In Section (10)-ii of the Examiner's Answer, the Examiner argues that Tahara, at col. 13 lines 52-67, discloses variables such as horizontal_size_value, vertical_size_value, aspect_ratio_information, and bit_rate_value, which when used, result in the calculation of the bit resolution for quantization. However, the Examiner failed to show which of this data is from an edit step made by a user using video editing software and that such edit steps are used for compressing video data.

The Examiner further argues that the claims do not recite the data have to come from an edit step made by a user. However, claims 2 and 12 recite in part, "...using *information in the edit track* to determine the bit resolution of quantization for a region defined within the edit track for compressing the video data." This clearly indicates that the information used to determine the bit resolution of quantization come from edit track, and the edit track comprises user editing information, as recited in independent claims 1 and 11, upon which claims 2 and 12 depend.

In Section (10)-iii of the Examiner's Answer, the Examiner argues that because Tahara, at col. 19 lines 5-13, discloses f_code[0][1], f_code[1][0], and f_code[1][1], which define search ranges of forward and backward, vertical and horizontal motion vectors, the motion vectors are determined using information in the edit track.

As explained above, the edit track of the instant application is equivalent to Tahara's Ancillary_data. However, Tahara's f_code[0][1], f_code[1][0], and f_code[1][1] are not part of its Ancillary_data; instead, they are part of the picture_coding_extension (see Tahara, col. 18 lines 61-66). Claims 3 and 13 of the instant application recite in part, "... using *motion information in the edit track* to create a

motion vector." Therefore, Tahara does not disclose using motion information from the edit track (i.e., Tahara's Ancillary_data) to determine motion vectors.

In Section (10)-iv of the Examiner's Answer, the Examiner argues that Wang (US Patent No. 5,802,361), at col. 11 lines 19-29, discloses calculating a scene change detection file and scene changes typically are with an I frame. However, the scene side information file disclosed in Wang contains information identifying the time index of scene changes in the video sequences, and the summary file identifies representative images from each scene. First, nowhere in Wang specifically discloses that either the scene side information file or the summary file contains any I frames. Furthermore, the information in Wang is obtained using a scene change detector, which differs from the instant application.

Claims 5 and 15 of the instant application recite in part, "... using *information in the edit track* to determine a number of I-frames that will be used for compression." This clearly indicates that the user editing information comprised in the edit track is used to determine I-frames, not a scene change detector, as disclosed in Wang.

Furthermore, the Examiner argues that Wang, at col. 8 liens 15-19, discloses that images only need to be compressed for storage purposes. If the application had enough storage, the video would not need to be compressed. For images which are *not* compressed, the scene change detection file would indicate the number of I-frames that will be used for compression. However, Wang, at col. 8 lines 15-19, discloses storing input images in the image database for use during the image search process, and the input images may be compressed using *conventional* compression techniques in order to reduce their storage requirement. Nowhere in Wang discuses using I-frame for image compression.

In addition, Tahara discloses video compression technique, while Wang discloses image search technique. It is not obvious to combine Tahara and Wang to obtain the invention as recited in claims 5 and 15. The Examiner did not provide motivation as to why a broadcast system of Tahara would be motivated to add the image search tool of Wang.